

REGION 5 Enforcement Division

FIELD NOTES

Inspection Date(s):	05/17/2022 - 05/17/2022	Announced: No	
Time:	Entry: 08:00 AM (CT)	Exit: 02:10 PM (CT)	
Program:	RCRA		
Regulatory Program(s):	Title 40 - ENVIRONMENTAL PROTECTION AGENCY; ILLINOIS STATE REGULATIONS		
If Access is Denied:			
Company Name:			
Facility or Site Name:	UNIV OF IL MAIN CAMPUS		
Facility/Site Physical Address:	101 S GREGORY ST		
(City, state, zip code)	URBANA, IL 61801-3070		
Type of Operation:	Lab Materials (Majority generated through research and teaching labs)		
Size of Facility:	8900 General Size (Square Feet)		
Length of Facility at Location:	1995		
Geographic Coordinates:	40.11219, -88.22061		
Mailing address: (Secondary Address)	2006 Griffith Dr.		
(City, state, zip code)	Champaign, IL		
County:			
Facility/Site Identifier:	ILD041544081		
Media Number:	0198270008		
NAICS:			
Lead Inspector:			
Andrea Dierich			
	REGION 5	Dierich.Andrea@epa.gov	(312) 353-6134
Additional Persons Participating in Inspection:			
Todd Brown	REGION 5	brown.todd@epa.gov	
Supervisor Review:			
Michael Cunningham			
	REGION 5	cunningham.michael@epa.gov	

SECTION I – INTRODUCTION**Purpose of the Inspection/Objective**

Type of inspection: CEI - Compliance Evaluation Inspection for a Treatment, Storage, Disposal Facility (TSDF).

Attendees

Title	Name	Phone	Email	Present in Opening Conf.	Present in Closing Conf.
Lead Inspector	Andrea Dierich	3123536134	Dierich.Andrea@epa.gov	Yes	Yes
Inspector	Todd Brown		brown.todd@epa.gov	Yes	Yes
Regulated Waste Compliance Manager	Landon Hill	(217) 333-2436	Landon@illinois.edu	Yes	Yes
Illinois EPA Inspector	Joshua Groth	(217) 557-7802	Joshua.Groth@Illinois.gov	Yes	Yes

Entry:

On May 17, 2022, Todd Brown and I (Andrea Dierich), arrived at the UNIV OF IL MAIN CAMPUS at 08:00 AM (CT) to complete a CEI inspection of the University's Treatment, Storage and Disposal Facility (TSDF). We met Mr. Joshua Groth in the parking lot outside of 101 S Gregory St., the Research, Health, and Safety facility, and then proceeded to the building. We met Tina McGill at the front desk and explained the reason for our visit. Ms. McGill showed us to a conference room to wait for the appropriate contacts. After a brief wait, Ms. Stephanie Hess, Interim Director, arrived and welcomed us on-site. We provided our credentials to her for review and then were instructed to head to the Special Materials Storage Facility (SMSF) located at 2006 Griffith Dr., Champaign, Illinois. The SMSF was located about three miles southwest from the Gregory St. building.

Opening Conference:

At the SMSF we met Mr. Landon Hill. We discussed the schedule for the day and asked if there were any confidentially business information (CBI) claims. Mr. Hill stated that there were no CBI claims. We then proceeded to ask him to provide a brief background and explain the process of accepting, profiling, and handling waste for the facility.

Number of employees	5
Weather Conditions	Sunny, 70+ Degrees
Operating Hours	7:30 - 4:30pm
Safety Training Provided to Inspector (s)?	No – safety glasses and steel toe shoes were required during site walk through.
What type of generator facility notified?	Large Quantity Generator
What type of generator facility verified as?	Large Quantity Generator

Background:

The University of Illinois Urbana-Champaign (UIUC) is a State-funded higher education institution founded in 1867. It has approximately 34,000 under-graduate students and more than 13,000 post-graduate students. The campus consists of more than six hundred buildings and occupies more than 6,300 acres. Various research, medical and veterinary facilities are located on campus generating hazardous, non-hazardous, and universal wastes. Waste streams include spent or expired laboratory reagents, acids, caustics, organics, metals, high and low BTU waste, and radiological wastes. Universal waste consists of batteries, fluorescent bulbs, and medical waste. Aerosols are also generated and stored; however, they are still treated as hazardous waste. D- code waste is common with numerous F-, P-, and U- waste codes as well.

UIUC is a licensed TSDF, operating with an RCRA part B permit that was renewed in 2019. The TSDF, known as the Special Materials Storage Facility (SMSF,) is located at 2006 Griffith Dr., Champaign. The SMSF receives a wide variety of hazardous and mixed waste from more than one hundred satellite accumulations areas (SAAs) across campus. All waste accepted into the SMSF must be generated on campus and is permitted to be stored for up to one year (excluding non-mixed radiological waste).

UIUC has implemented an online tracking and pick-up system for waste. Each individual generator utilizes their UIUC ID and password to order a pick-up at one of the multiple SAAs. The individual selects a waste profile from a prepopulated list or generic UI-1 that indicates for SMSF staff to sample and review for proper waste determination. UIUC describes their entire determination and waste pick-up process in a training video provided online, <https://www.youtube.com/watch?v=yw7Z2CZ02Kg>. Each pick-up request generates a packing list and with every 10th pick-up staff completes an in-depth review quality check.

Most of the waste received at the SMSF is less than 5 gallons, however, in accordance with the facility's waste analysis plan (WAP) anything greater than 5-gals is sampled and goes through profile analysis. All SMSF staff onsite can complete the analyses and determine waste profiles. Under the SMSF's disposal contract, the facility also can utilize a Tradebe chemist who provides additional analysis and treatment for stabilizing reactive wastes for transport off-site.

Mr. Hill was able to explain that stabilization is typically reserved for waste sensitive to shock and treatment is primarily water based. SMSF treats its hazardous waste to make it safer for transport, not to meet land disposal restriction standards. All stabilization is completed in the Remote Treatment Area (RTA) and completed by Tradebe Transportation LLC (INR000123497) for transport to Tradebe Treatment and Recycling LLC (IND000646943) in East Chicago, IN. Mr. Hill noted that no waste codes are removed from bulked or treated waste streams.

Site Walk-Through

Mr. Hill accompanied the inspectors through the building. Each room listed below contains information gathered from the facility walk-through. Photos referenced below are located in Appendix A. All photographs were taken by Mr. Brown during the site visit.

Building/Area/Sub-area	Observations/Process Description	Area Of Concern
372	Special Material Storage Facility	No
100	Area 100 (the loading dock) is on the western portion of the building. All incoming and outgoing loads are transferred through this area. Carts are used to separate and hold material until it is placed in a proper storage room. There is no long-term storage in this area. The area contained non-hazardous waste and boxed salts. Empty drums and boxes were present along the eastern wall.	No
	I noted the long blind sumps that could hold up to 1,027 gallons in the case of a release.	
101	Room 101 is considered the Flammable Solvents room (photograph 1). Up to 56 drums can be stored in the room. At the time of the inspection, I counted 17 drums. Three profiles are stored in the various drums; low-pH flammable solvents, halogenated flammable solvents, and non-halogenated flammable solvents. I noted the three profiles were stored in different areas of the room and there were several room diagrams on the walls and doors to indicate where drums should be place. No concerns were noted in this room.	No
102	Room 102 is adjacent to room 101. In this room incoming solvents are blended into one of the three flammable profiles into 55-gallon drums that are then placed in room 101 (photograph 2). Three active drums were located under the fume hood. All drums were sealed with funnels sitting on top of the drums. Mr. Hill explained room 102 was outfitted with a fire extinguisher, foam suppressant and a heat detection alarm. When asked who is allowed to blend the solvents, Mr. Hill stated that all employees are able to.	No

103	<p>The pesticides room is located next to room 102 on the south end of the building. Mr. Hill stated that although the room is labeled pesticides, staff typically handles any pesticides that come in quickly by bagging them and transporting them off-site as soon as possible due to the smell.</p> <p>At the time of the inspection there were empty drums present in the room and the eastern wall contained bins with various hazardous waste that required clarification on their profiles (photograph 3).</p>	No
105	Room 105 is labeled as the lab pack room. Mr. Hill explained that they store debris, silica, and buffer waste in this room. 16 hazardous drums and 4 non-hazardous drums were observed in the room (photograph 4).	No
106	Next, we entered the miscellaneous chemicals room. Mr. Hill referred to the room as the poisons and non-hazardous room. Each wall of the room	No
	contained a different waste chemistry: organics, inorganics, mercury, and in the center of the room were batteries for recycling, photo 5.	
107	<p>Acids and bases were kept in room 107. At the time of the inspection there were 3 full drums of basic waste material drums and 2 non-hazardous drums (photograph 6). Along the wall were several acid shelving units.</p> <p>Located in the room were 3M sorbent pads for spills and an eye wash station was observed directly outside the door.</p>	No
108	The room adjacent to 107 was the air and water reactivities room. I observed a dehumidifier running in the corner of the room. Cabinets lined the walls for the distinct types of waste (air, water, corrosives, polymerizables, reducers, mercaptans/sulfides/cyanides, and alkali metals,) (photograph 7). At the time of the inspection, all the cabinets were empty. Mr. Hill commented that Tradebe had come the week prior to pick-up these materials.	No

109	<p>Room 109 is dedicated to gas cylinders and explosives. At the time of the inspection, we observed one shelving unit with waste material that was past a year in storage (photographs 8 & 9). We asked Mr. Hill about the two items, and he stated that both waste containers were being treated for stabilization. He commented that the Tradebe chemist would be coming to review items for the next shipment in a couple of weeks. Based on the chemist's assessment the items would either be considered stable for transport or left to continue their stabilization.</p> <p>To the side of the stabilization shelving were boxed aerosols. The box was labeled hazardous waste and Mr. Hill stated that they would be shipped as such despite aerosols being recently classified as universal waste in Illinois.</p>	Yes - containers stored for over a year period.
110	Room 110 was labeled oxidizers and three containers were observed in the room.	No
111	<p>Room 111 was labeled for PCB and used oil. Mr. Hill stated that the SMSF no longer collected and stored PCB waste. At the time of the inspection 3 small drums were observed without hazardous waste labels (photograph 12).</p> <p>Mr. Hill stated that the drums had recently come in</p>	Yes - Hazardous waste drums not properly labeled.

	<p>and had been accepted under the generic waste labeling and that he had not been able to print the labels yet but that they were in the system. All three drums were labeled with the profile written on top of the drum lid, photo 13.</p> <p>Beyond the three unlabeled drums there were fifteen additional drums and containers in the room. The remaining waste containers were labeled correctly.</p>	
112	Area 112 located in the center of the SMSF is considered a catch-all with storage of non-hazardous waste and hazardous waste. Drums were lined up in the northeastern area of the room. The area appeared clean, and all drums were appropriately sealed.	No
126	Room 125 was in the northern section of the building. This room contained radioactive waste. Material in this room is boxed or in containers and stored until the radioactive half-life is met.	No
127	Room 126 is located next to room 125 and holds sharps and other medical waste. Mr. Hill stated that Stericycle comes roughly 2 times per week to pick-up sharps and biomedical waste.	No

SECTION II – RECORDS REVIEW**Records Review**

Record: Manifests		AOC: No
Ref #: AD3-RR-001	Reviewed By: Andrea Dierich	Reviewed Date: 05/17/2022
<p>During the manifest review, I picked out one of the waste streams shipped as hazardous under DOT regulations but did not have any waste codes associated with it. On February 14, 2022, manifests #023634794JJJ, with a UIUC number of 810 as shipped as corrosive liquids without codes. Mr. Hill stated that it didn't test above 12.5 pH and they didn't consider it a hazardous waste but was shipped as a hazardous material due to DOT regulations. We reviewed the waste profile for UIUC810 and the determination was made using the SDS for Buckeye Terminator.</p> <p>Reviewed manifests from 5/20/21 - 5/12/22. Manifests were signed by Landon Hill as the generator, and all manifests had an LDR attached and signed. Transporter copies were attached to the original generator copy.</p>		
Record: Inspections and Maintenance Logs		AOC: No
Ref #: AD3-RR-002	Reviewed By: Andrea Dierich	Reviewed Date: 05/17/2022

Reviewing Inspections logs, I observed; daily, weekly and monthly inspections of various aspects of the SMSF.

Daily inspections included reviewing container condition, room doors, odors, and ventilation. Weekly inspections included outside gates, safety showers, shelving, and cabinet conditions. Monthly inspections reviewed fire extinguishers, alarms, doorbell, and general availability of safety equipment.

All daily inspections were completed in the AM. Mr. Hill explained that in the evening, the last employee out completes a quick walk-through to ensure doors are locked. Daily inspection reports are signed by Sophie Plumber. Monthly and weekly inspections reviewed were also signed by Ms. Sophie Plumber and a few other employees occasionally.

When reviewing monthly inspection reports I noted that fire extinguishers were marked as needing maintenance. When asked, Mr. Hill responded that the fire extinguishers were out of compliance, however, an active work order was already placed in the system fix and was done in May 2022. He stated the June inspection report will indicate the work completed.

Record: Training

AOC: No

Ref #: AD3-RR-003

Reviewed By: Andrea Dierich

Reviewed Date: 05/17/2022

Training Records:

All training records were complete. Two new employees have started in the last year. Both received 24hr HAZWOPER training online. All staff receive 8hr-hazwoper refresher online annually as well. 2021 training was completed for all employees in November and December online. A full list of courses for training was available and included SMSF Orientation, Emergency Contingency Plan, UIUS Chemical Waste Management Guide, DOT Security Plan, SMSF Training Manual, 24hr Hazwopper Chemical Spill Response, 5-day RCTA Training, DOT Hazmat, and Respirator.

Record: Personnel Training		AOC: No
Ref #: AD3-RR-004	Reviewed By: Andrea Dierich	Reviewed Date: 05/17/2022
<p>In addition to the training documentation, I reviewed the list of job descriptions provided along with the associated individuals filling each role:</p> <p>Research Safety Professional - Brain Meschewski & Morris Lee Regulated Waste Compliance Manager - Landon Hill & Shad Barker EHS Technician III - Heather Craven EHS Technician II - Sophia Plummer & Elliott "Joe" Hayes</p> <p>Mr. Hill stated Sophie Plummer is a temporary employee who started on 11/8/2021 and was just moved to a permanent employee on April 4, 2022. Ms. Plummer completed 24hr HAZWOPER training on 12/6/21. Ms. Plummer was missing OTJ- Chem handling and following SMSF procedures.</p>		
Record: Emergency Equipment Inspection records/ Contingency Plan		AOC: No
Ref #: AD3-RR-005	Reviewed By: Andrea Dierich	Reviewed Date: 05/17/2022
<p>Fire Department Inspection (Familiarization Tour)</p> <ul style="list-style-type: none"> • July 12, 21 • Sept. 17, 21 <p>During the walk through I noted evacuation routes and emergency response numbers located by many of the doors in the facility (photographs 14 & 15). A few contacts had retired and when asked, Mr. Hill said they were updating the records.</p> <p>Contractor is EnviroServ for emergency response management.</p>		
Record: Waste Determination Documents		AOC: No
Ref #: AD3-RR-006	Reviewed By: Andrea Dierich	Reviewed Date: 05/26/2022

I reviewed two non-hazardous waste streams identified during the facility tour, UI 219033 and UI 211999. I asked Mr. Hill to provide the documents for the determination. One was selected from room 111 in the PCB/Dioxin room, photo 10 & 11.

UI 219033 was 95% water with 5% mixed volume of the following CAS numbers.

- 931-36-2
- 110-85-0
- 109-07-9
- 143-24-8

These CAS numbers and the determination were provided by the personnel requesting pick-up.

UI211999 was an already established number associated with 5% heptane and fermentation waste. Mr. Hill stated that he will test the pH prior to shipment to ensure that it does not fall into a hazardous waste category.

SECTION IV – FOLLOW UP

Building:	Area:	Sub-area:
AD3-AF-001		
Mr. Hill will email: Contingency Plan, WAP, 1st responder agreements,		

Closing Conference

After reviewing records, I began the closing conference with Mr. Hill. I discussed the timeline for the report and went through items that Mr. Hill stated he would send electronically. In addition to the follow-up items, I listed two areas of concern based on the observations from our walk through.

- Two containers of hazardous waste were in storage at the facility for more than a year.
- The three drums without proper labeling in room 111.

Mr. Hill indicated he would fix the labeling on the drums immediately and stated that the two containers of concern were in storage still due to stabilization concerns and would be shipped immediately once deemed stable for transport by Tradebe.

Communication Log

The following information was received by REGION 5 on/after exiting the Facility on 05/17/2022.

Type	Location	Point of Contact	Description	Contains PII
Email		Landon Hill	Mr. Hill provided the requested follow-up documents via email May 17 and May 18, 2022.	No

SECTION V – SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

No sampling was conducted.

SECTION VI – LIST OF APPENDICES

Photo Log

Site Map

Document Log

Appendix A – Photograph Log

University of Illinois at Urbana-Champaign
EPA Inspection May 17, 2022
All photos taken by Todd Brown (EPA), Inspector, U.S. EPA
Camera: Canon Power Shot A2500



1: IMG_0127

Description: Entrance to Room 101.

Location: Outside Room 101. Solvent Storage Room.

Camera Direction: South.

Date/Time: May 17, 2022. 9:45 A.M.



2: IMG_0128

Description: Three containers of hazardous waste under fume hood. The containers were labeled and closed. The containers held three separate waste streams: (1) halogenated solvents; (2) halogenated/non-halogenated solvents; and (3) mixed non-halogenated solvents.

Location: Room 102. Solvent Bulking Room.

Camera Direction: South.

Date/Time: May 17, 2022. 9:53 A.M.



1: IMG_0129

Description: Containers in storage at Room 103.

Location: Entrance to Room 103. Pesticides Room.

Camera Direction: South.

Date/Time: May 17, 2022. 10:03 A.M.



2: IMG_0130

Description: Containers at Room 105.

Location: Room 105. Lab Pack Storage Room.

Camera Direction: South.

Date/Time: May 17, 2022. 10:09 A.M.



3: IMG_0131

Description: View of Room 106. The shelves hold various small-sized containers of hazardous waste.

Location: Room 106. Misc. Chemicals Room.

Camera Direction: South.

Date/Time: May 17, 2022. 10:16 A.M.



4: IMG_0132

Description: Containers of caustic waste in Room 107. The two stacked containers were empty.

Location: Room 107. Bases Room.

Camera Direction: East.

Date/Time: May 17, 2022. 10:20 A.M.



5: IMG_0133

Description: Cabinets in Room 108. The cabinets were labeled as follows: (1) Air Reactive; (2) Water Reactive; (3) Polymerizable Explosives; (4) Reducers; (5) Mercaptans, Sulfides, Cyanides; and (6) Alkali Metals.

Location: Room 108. Reactives Room.

Camera Direction: East.

Date/Time: May 17, 2022. 10:24 A.M.

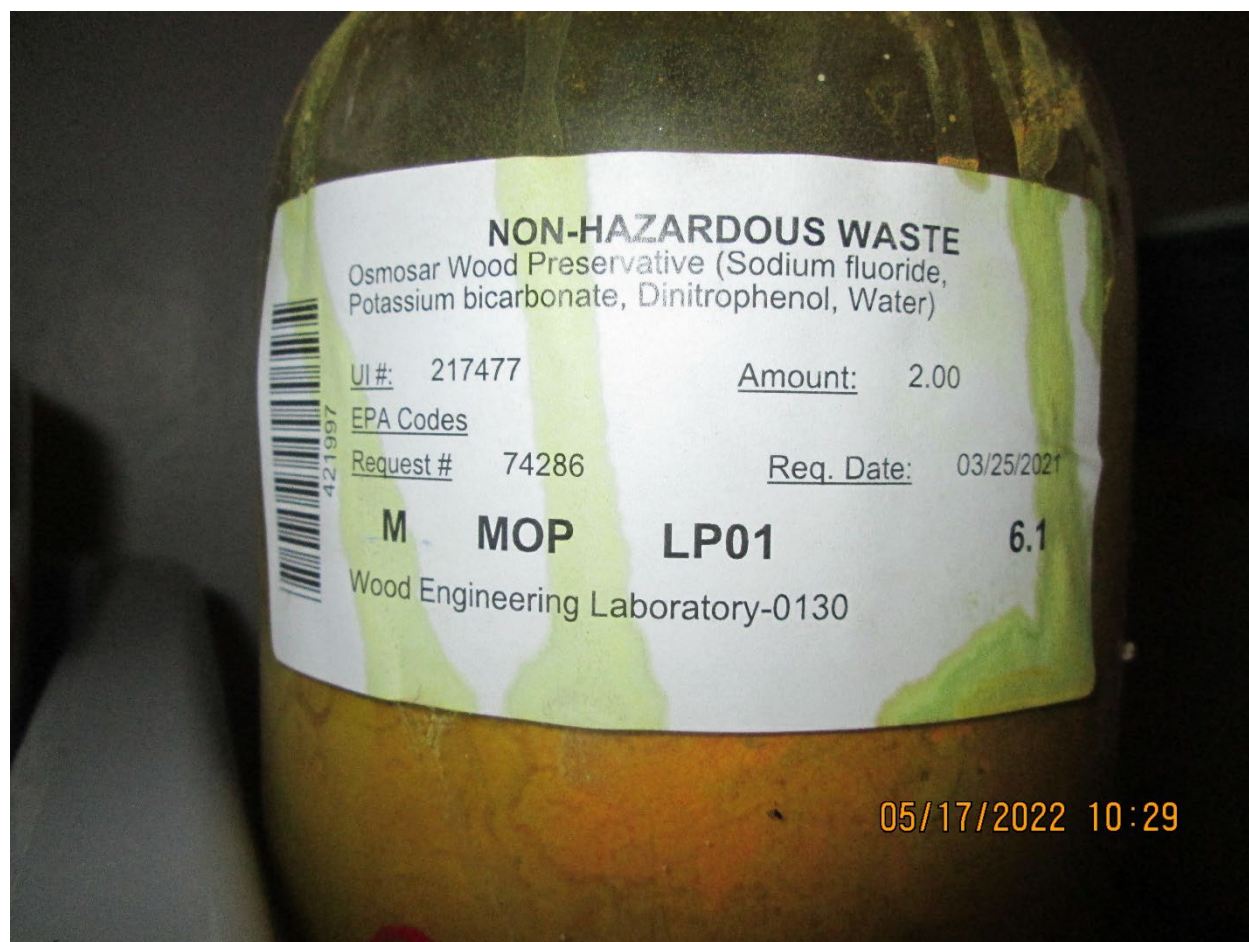
**6: IMG_0134**

Description: Container of waste on shelf in Room 109. The labeling stated it was “non-hazardous” (see photograph 9). However, this material had been stored since it least March 25, 2021. According to Mr. Landon Hill, Regulatory Compliance Manager, the material was not safe to transport. The university has been slowly adding water to saturate the solids. The material came from a wood engineering laboratory.

Location: Room 109. Explosives/Gas Cylinder Room.

Camera Direction: South.

Date/Time: May 17, 2022. 10:29 A.M.

**7: IMG_0135****Description:** Label on bottle in photograph 8.**Location:** Room 109. Explosives/Gas Cylinder Room.**Camera Direction:** South.**Date/Time:** May 17, 2022. 10:29 A.M.



8: IMG_0136

Description: Container labeled “non-hazardous” waste. See photograph 11 for label.

Location: Room 111. PCB/Dioxin Room.

Camera Direction: North.

Date/Time: May 17, 2022. 10:36 A.M.

Inspection Date(s):

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9: IMG_0137

Description: Label on container in photograph 10.

Location: Room 111. PCB/Dioxin Room.

Camera Direction: Not noted.

Date/Time: May 17, 2022. 10:36 A.M.

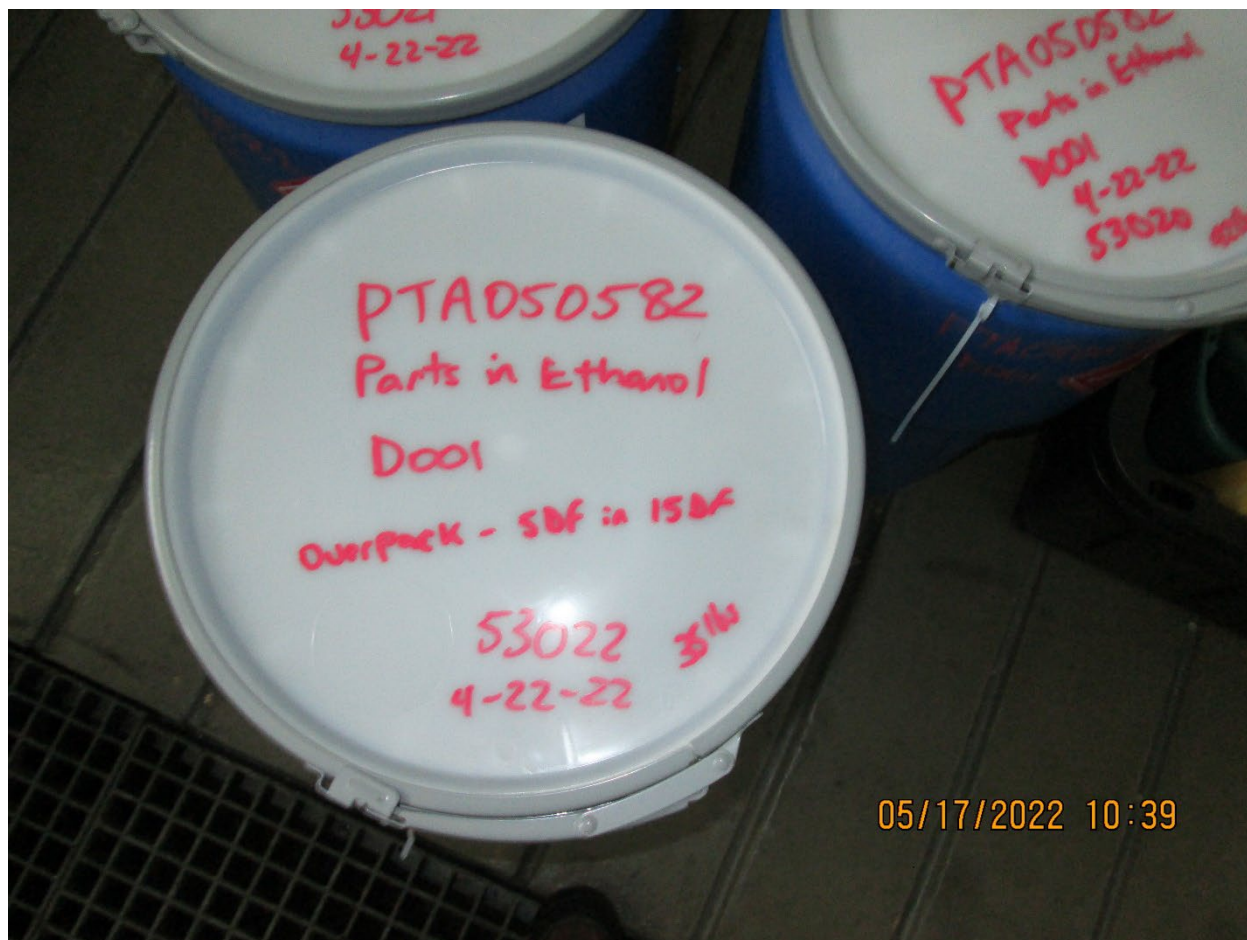
**10: IMG_0138**

Description: Three containers of mice in ignitable liquid. The marking on top of containers included the D001 waste code. However, the containers were not labeled with the words, "Hazardous Waste." See photograph 13 for markings.

Location: Room 111. PCB/Dioxin Room.

Camera Direction: South.

Date/Time: May 17, 2022. 10:39 A.M.



11: IMG_0139

Description: Marking on containers in photograph 12.

Location: Room 111. PCB/Dioxin Room.

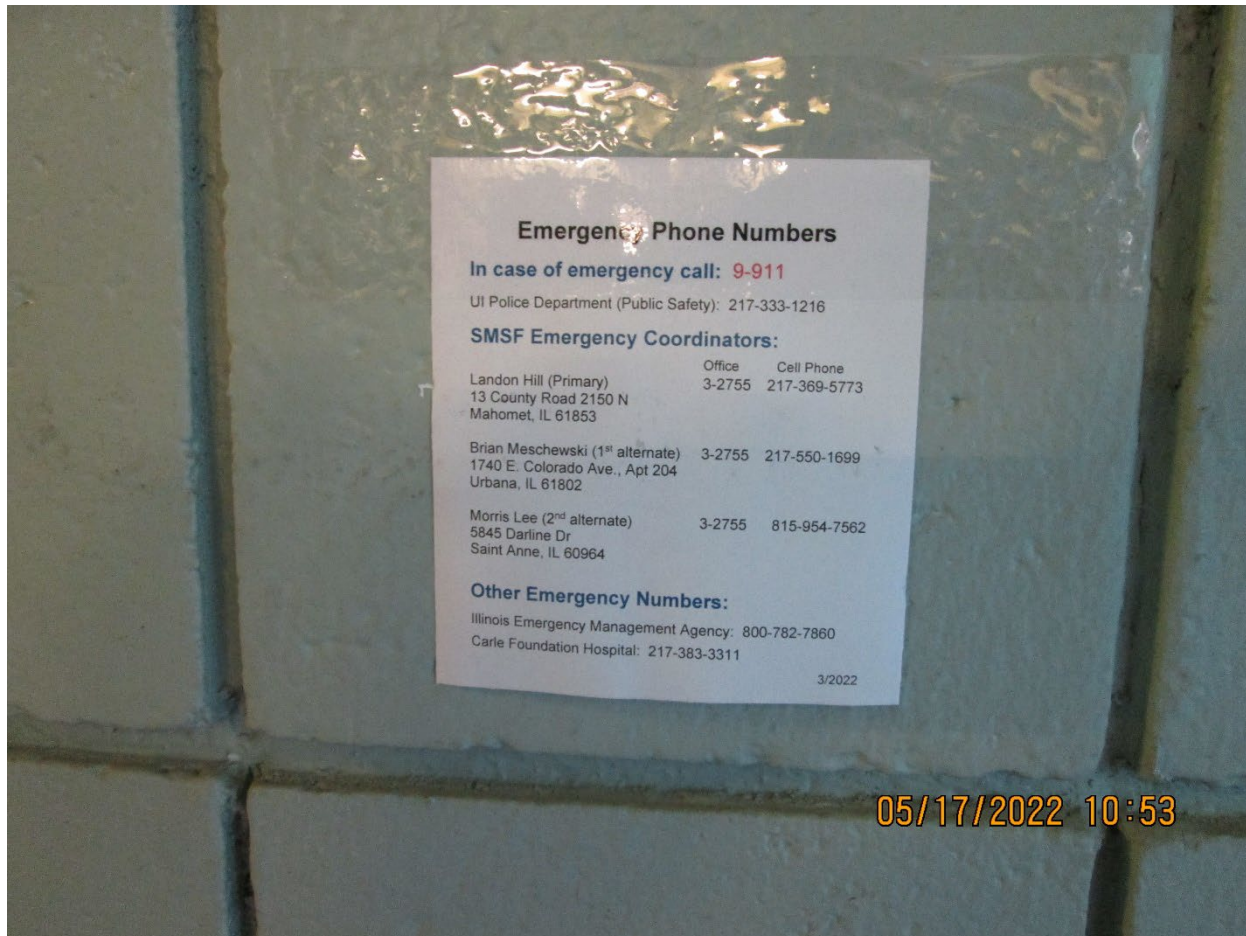
Camera Direction: South.

Date/Time: May 17, 2022. 10:39 A.M.

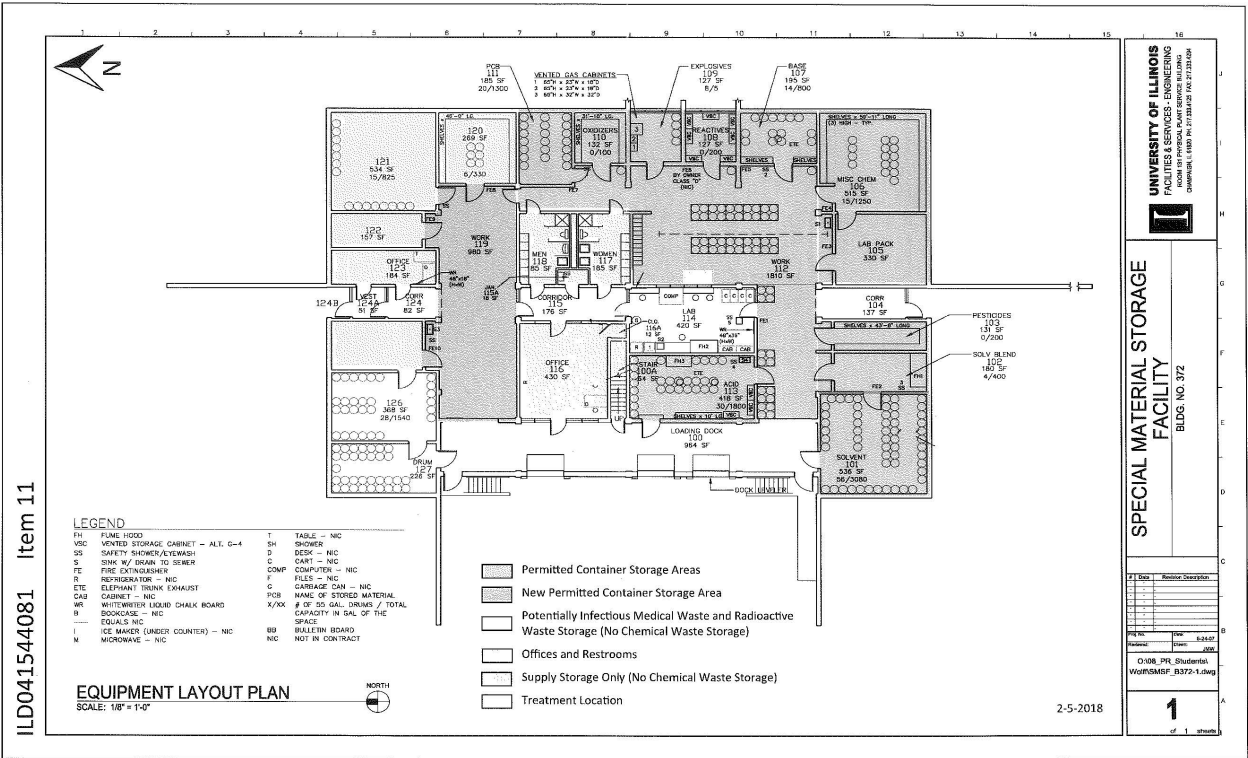


12: IMG_0140

Description: Posting on wall next to facility exit.**Location:** West wall near door to Room 127.**Camera Direction:** West.**Date/Time:** May 17, 2022. 10:52 A.M.

**13: IMG_0141****Description:** Posting on wall next to facility exit.**Location:** West wall near door to Room 127.**Camera Direction:** West.**Date/Time:** May 17, 2022. 10:53 A.M.

Appendix B – Site Map



Appendix C – Documents

Document Type	Document Name	Contains CBI	Contains PII	Uploaded By	Date Received
Other - 2019 Permit; Log No. B-105R2	U of I Permit.pdf	No	No	Andrea Dierich	05/09/2022
Facility Map	ILD041544081_Facility Layout Plan.pdf	No	No	Andrea Dierich	05/24/2022
Contingency Plan	SMSF Contingency Plan Revision 22.0.pdf	No	No	Andrea Dierich	05/26/2022
Communications	Profile drums now labeled Hazardous Waste.jpg	No	No	Andrea Dierich	05/26/2022